

| addition reaction | any of a class of chemical reactions in which an atom or group of atoms is added to a molecule |
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| alkane | any saturated aliphatic (no rings) hydrocarbon with the general formula C_nH_{2n+2} |
| alkene | Any of a series of unsaturated, open chain hydrocarbons with one or more carbon-carbon double bonds, having the general formula C_nH_{2n} . |
| branched chain | an open chain of atoms, usually carbon, with one or more side chains attached to it. |
| but-1-ene | an organic compound and one of the isomers of butene. The formula is $C_{4}H_{8.}$ (2 hyphens) |
| butane | a colourless, flammable gas, C ₄ H ₁₀ , a saturated aliphatic existing in two isometric forms: used chiefly in the manufacture of rubber and as fuel. |
| catalytic cracking | the most important conversion process used in petroleum refineries. It is widely used to convert the high-boiling, high-molecular weight hydrocarbon fractions of petroleum crude oils to more valuable gasoline, olefinic gases and other products. |
| crack | to decompose as a result of being subjected to heat. |
| dipole | A pair of electric charges (or magnetic poles), of equal magnitude but of opposite sign or polarity, separated by a small distance. |
| double bond | a chemical linkage consisting of two covalent bonds between two atoms of a molecule, represented in chemical formulas by two lines, two dots, or four dots, as CH ₂ =CH ₂ ; CH ₂ :CH ₂ :CH ₂ :CH ₂ |
| ethane | a colourless, odourless, flammable gas, C_2H_6 , of the methane series, present in natural gas, illuminating gas, and crude petroleum: used chiefly in organic synthesis and as a fuel gas. |
| ethene | a colourless, flammable gas, C ₂ H ₄ , having a sweet, unpleasant odour and taste, the first member of the ethylene series, usually obtained from petroleum and natural gas: used as an agent to improve the colour of citrus fruits, in the synthesis of polyethylene, ethylene dibromide, ethylene oxide, and other organic compounds, and in medicine chiefly as an inhalation anaesthetic. |
| feedstock | the main raw material used in the manufacture of a product |
| flammable | easily set on fire; combustible; inflammable. |
| fossil fuel | any naturally occurring carbon or hydrocarbon fuel, such as coal, petroleum, peat, and natural gas, formed by the decomposition of prehistoric organisms |
| fraction | (in a volatile mixture) a component whose range of boiling point temperatures allows it to be separated from other components by fractionation. |
| fractional distillation | the separation of volatile components of different boiling points in a mixture by the gradual increase of temperature and the separate collection of each component. |
| fuel | A substance that produces useful energy when it undergoes a chemical or nuclear reaction. Substances such as coal, wood, oil, or gas provides energy when burned. Compounds in the body such as glucose are broken down into simpler compounds to provide energy for metabolic processes. Some radioactive substances, such as plutonium and tritium, provide energy by undergoing nuclear fission or fusion. |
| functional group | the group of atoms in a compound, such as the hydroxyl group in an alcohol, that determines the chemical behaviour of the compound |
| gas | The state of matter distinguished from the solid and liquid states by relatively low density and viscosity, relatively great expansion and contraction with changes in pressure and temperature, the ability to diffuse readily, and the spontaneous tendency to become distributed uniformly throughout any container. |
| homologous series | a series of organic compounds with a similar general formula, possessing similar chemical properties due to the presence of the same functional group, and shows a gradation in physical properties as a result of increase in molecular size and mass |
| hydrocarbon | any of a class of compounds containing only hydrogen and carbon, as an alkane, methane, CH 4, an alkene, ethylene, C 2 H 4, an alkyne, acetylene, C 2 H 2, or an aromatic compound, benzene, C 6 H 6. |
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| incomplete combustion | this occurs when there isn't enough oxygen to allow the fuel to react completely to produce carbon dioxide and water. |
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| isomer | any of two or more compounds, radicals, or ions that contain the same number of atoms of the same elements but differ in structural arrangement and properties |
| methane | a colourless, odourless, flammable gas, CH ₄ , the main constituent of marsh gas and the firedamp of coal mines, obtained commercially from natural gas: the first member of the methane, or alkane, series of hydrocarbons. |
| non-renewable | a resource is a natural resource which cannot be produced, grown, generated, or used on a scale which can sustain its consumption rate, once used there is no more remaining. (1 hyphen) |
| oil | Any of a large class of viscous liquids that are typically very slippery and greasy are composed mostly of glycerides. They are flammable, do not mix with water, and include animal and vegetable fats as well as substances of mineral or synthetic origin. They are used in food, soap, and candles, and make good lubricants and fuels. |
| organic compound | A compound containing hydrocarbon groups. |
| polymer | Any of various chemical compounds made of smaller, identical molecules (called monomers) linked together. Some, like cellulose, occur naturally, while others, like nylon, are artificial. |
| polymerisation | a chemical process that combines several monomers to form a polymer or polymeric compound |
| polythene | a plastic polymer of ethylene used chiefly for containers, electrical insulation, and packaging. |
| propane | a colourless, flammable gas, C ₃ H ₈ , of the alkane series, occurring in petroleum and natural gas: used chiefly as a fuel and in organic synthesis. |
| propene | a colourless gaseous alkene obtained by cracking petroleum: used in synthesizing many organic compounds. Formula: $CH_3CH:CH_2$ (C_3H_6) |
| reactive | readily taking part in chemical reactions |
| refine | to separate (a mixture) into pure constituents, as in an oil refinery |
| saturated | (of an organic compound) containing no double or triple bonds; having each single bond attached to an atom or group. |
| sediment | Solid fragmented material, such as silt, sand, gravel, chemical precipitates, and fossil fragments, that is transported and deposited by water, ice, or wind or that accumulates through chemical precipitation or secretion by organisms, and that forms layers on the Earth's surface. Sedimentary rocks consist of consolidated |
| structural formula | a chemical formula showing the linkage of the atoms in a molecule diagrammatically, as H–O–H. |
| substitution | any of a class of chemical reactions in which an atom, ion, or group of atoms or ions in a molecule is |
| reaction | replaced by another atom, ion, or group. An example is the reaction in which the chlorine atom in the chloromethane molecule is displaced by the hydroxide ion, forming methanol |
| thermal decomposition | an endothermic reaction in which heat breaks chemical bonds in a compound |
| unbranched chain | a straight chain of carbon atoms |
| unsaturated | (of an organic compound) having a double or triple bond and capable of taking on elements or |
| unsaturateu | groups by direct chemical combination without the liberation of other elements or compounds, as ethylene, $CH_2 = CH_2$ |
| Van der Waals force | A weak force of attraction between electrically neutral molecules that collide with or pass very close to each other. The van der Waals force is caused by the attraction between electron-rich regions of one molecule and electron-poor regions of another (the attraction between the molecules seen as electric dipoles). |
| volatile | capable of readily changing from a solid or liquid form to a vapour; having a high vapour pressure and a low boiling point |